

C. Remarks

The claims are 1-11, with claims 1, 3, 4 and 6-11 being independent. All claims have been amended solely to improve their form. No new matter has been added. Reconsideration of the present claims is expressly requested.

Claims 1-11 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious from U.S. Patent No. 6,083,729 (Martin). The grounds of rejection are respectfully traversed.

The presently claimed invention, in pertinent part, is related to polyhydroxyalkanoates (PHAs) including specific units and methods for their synthesis. Martin is related to methods of separating PHAs from plants, such as transgenic oil corn. The Examiner has alleged that the PHA in Martin is prepared from the same components as those presently claimed, with the exception of a particular inclusion of the sulfur unit, and the structural similarity is sufficient to constitute a case of *prima facie* obviousness. Applicants respectfully disagree.

Martin does not disclose or suggest a PHA in which a side chain has the structures as presently claimed. At most, this reference appears to disclose a PHA in which a side chain may include hydrocarbon radicals, halo- and hydroxy-substituted radicals, hydroxy radicals, halogen radicals, nitrogen-substituted radicals, oxygen-substituted radicals and hydrogen atoms (col. 3, lines 62-67). In addition, Martin mentions that “[t]he PHA polymers also may contain or be modified to include other non-hydroxy acid units such as long chain fatty acids, amino acids, carbohydrates, phosphorus and sulfur containing compounds, and triols, such as glycerol. PHA products which can be isolated include derivatives formed upon physical, chemical or biochemical treatment

of the biomass or by processes within the biomass including hydroxyacid monomers, dimers, trimers, linear and cyclic oligomers and lactones. PHA derivative products which can be isolated include esters, diols, unsaturated compounds, aldehydes, acids, alcohols, lactones, cyclic and linear esters, amides, and thioesters of polyhydroxyalkanoates or of a monomer derived from the polyhydroxyalkanoate.” (col. 4, lines 35-47). None of the presently claimed side chains are disclosed or suggested.

Furthermore, as mentioned above, Martin teaches isolating the PHAs from plants (see Abstract). The presently claimed invention discloses obtaining the claimed PHAs via chemical synthesis from precursor compounds, which are not recited to be obtained from plants. Thus, Applicants respectfully submit that the premise on which the Examiner’s allegation of obviousness is based (the PHA in Martin is prepared from the same components as those presently claimed) is not supported.

Moreover, Applicants submit that in order to obtain a different PHA from that disclosed in Martin from a plant source, one would have to genetically engineer or identify a plant that can produce the desired PHA. This is neither obvious nor feasible without conducting undue experimentation, if at all possible. In fact, Martin provides no reason for one skilled in the art to even embark on such research, much less reasonably expect to succeed. Thus, it is clear that Martin cannot affect the patentability of the presently claimed invention.

Wherefore, withdrawal of the outstanding rejections and passage of the application to issue are respectfully requested.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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